



November 22, 1999

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Mr. D. Wayne Hedberg
Permit Supervisor
Minerals Regulatory Program
State of Utah
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Salt Lake City, Utah, 84114

Re: Notice of Non-Compliance, North Lily Mining Company, Tintic Project M/023/007, Juab County, Utah.

Dear Mr. Hedberg;

This letter is intended to be fully responsive to the information requests contained in your letter of October 12, 1999 and Mary Ann Wright's letter dated November 16, 1999. North Lily Mining Company believes that it has always been cooperative in its relationship with DOGM and it is the Company's intention to operate in a responsible manner in accord with applicable regulations, rules, stipulations, and permit conditions. The information below is presented in the sequence of DOGM's requests.

By November 22, 1999, North Lily Mining Company must submit a detailed plan describing how the company will stabilize and maintain the site to address the findings of Non-Compliance as outlined in the October 12, 1999 letter.

These matters are discussed below.

1. <u>Section R647-4-107.1 Operation Practices</u> - requires the operation to minimize hazards to the public safety and welfare. Due to the presence of dead animals noted during recent staff inspections (2 dead birds and a dead sheep), the questionable water quality of the pad effluent, and the insecure nature of the site (wide open gates leading to process ponds and heap), the Division feels public safety and welfare is compromised.

North Lily and DOGM have agreed that the issue of site security has been resolved such that the facility does not represent a hazard to public safety and welfare.

2. <u>R647-107.2. Drainages</u> – requires the operator to take appropriate measures to avoid or minimize environmental damage to natural drainage channels. To date, there have been a number of unauthorized releases of contaminated water leaving the process

water ponds and traveling offsite through a culvert located west of the site and under State Highway 6 to adjacent undisturbed areas.

The company is unaware of any unauthorized releases of contaminated water leaving the process water ponds such that the releases resulted in environmental damage to natural drainage channels. There have been no releases from the process ponds since 1991 (the period of history available to current management). There was a wash out in 1997 that resulted in heap material being washed from the pad. This release was properly reported and cleaned up to the satisfaction of DOGM and DWO.

During our recent meeting, it was learned that there was fluid being pumped from the overflow pond on or around September 18, 1997. The photos show that the sump pump was being used for the pumping and the fluid was being pumped under Highway 6 to the approved land application site. To the best of North Lily staff recollection, the fluid being pumped was rainwater deposited directly into the overflow pond after the overflow pond was previously emptied of effluent as a part of the approved land application process. The pumping capacity of the sump pump is such that the land application discharge system could not be sufficiently pressurized to allow sprinkler application so the rainwater was pumped from the overflow pond sump through a hose and under Highway 6 Support for this recollection is provided by 1) the photo taken the same day that shows that the preg and barren ponds were empty and, 2) the small quantity of fluids present in the overflow pond. Had this issue been addressed in 1997 when discovered, it would have been resolved then rather than relying upon our mutual recollections over two years later

<u>Process Ponds</u> - Given the current deteriorated condition of the process ponds (and the volume of impounded solutions), it is doubtful these facilities will successfully retain the amount of additional effluent/runoff that may be produced when a significant precipitation event (or spring snowmelt) occurs. We believe that the capacity and integrity of these containment facilities will be breached leading to uncontrolled discharges of solutions.

North Lily has been aggressively evaporating fluids since August. These efforts have been successful with pond fluid volumes being reduced from approximately 1,000,000 gallons at August 18, 1999 to about 700,000 gallons at September 9, 1999 and less than 100,000 gallons at November 10, 1999. This is less than 10% of the fluid inventory when compared with the period of active leaching. This is also less than 10% of the fluid inventory of November 1998 (see DOGM inspection photographs). This successful evaporative effort is attributed to active fluid management including the addition of misters and good weather.

3. <u>R647-4-107.3. Erosion Control</u> - There is evidence of significant erosion on the heap leach pad where processed, contaminated ore has slumped blocking the solution conveyance ditches. This is causing potential environmental and heap stability problems and uncontrolled discharge of process solutions.

There is some slumping of the graded heap surface at three or four specific locations that may be impeding flow in the solution conveyance ditches. These areas will be dug out in December to restore direct solution flow to the ponds. The slumps will be repaired as a part of final grading and prior to placement of topsoil on the heap surface.

4. <u>R647-4-107.4. Deleterious Materials</u> - deleterious material (i.e. pad effluent) is potentially leaving the site by way of compromised liners both associated with the pad and the process water ponds. The presence of several opened electrical transformers on the east side of the heap leach pad raises the question of possible PCB contamination.

North Lily implemented a program of maintenance to repair tears in the pond liners in September. Repairs have been made to the seam tear in the overflow pond, to other damaged areas in the overflow pond and to the spillway between the barren pond and the overflow pond. The repairs to the spillway from the pad to the preg pond have begun and this work will be completed by early December, weather permitting. All repairs are being completed in accordance with procedures recommended by the liner manufacturer and approved adhesives are being used.

North Lily and DOGM have agreed that the transformers were tested in 1994 and found to be non-PCB transformers.

Issues to be additionally addressed are discussed below.

Water balance calculations that estimate the amount of water currently held in the heap and ponds. A demonstration that the ponds will adequately contain all existing solutions plus any additional draindown or runoff caused by a significant rainfall event(s) and any spring snowmelt.

North Lily estimates that there is less than 200,000 gallons of active fluids in the system at November 19, 1999. This estimated quantity includes about 80,000 gallons in the preg pond, 20,000 gallons in the barren pond and less than 100,000 gallons subject to drain down. Pumping was suspended on several occasions during the past month and drain down is estimated at 25 gallons per minute, 36,000 gallons per day or 72,000 gallons for the 48-hour standard measurement of "available" drain down.

The pond capacities according to company measurements are listed below.

Pond	Capacity (US Gallons)
Preg Pond	894,608
Barren Pond	1,113,024
Sub-total Sub-total	2,007,632
Overflow Pond	1,529,728
Total Pond Capacity	3,537,360

The 100 year, 24-hour storm was calculated by SRK, the project's design engineers, to be 2.8 inches. Coupling this hypothetical storm with snowmelt containing 1 inch of moisture

results in 3.8 inches of moisture over the approximate 16-acre site. Further assuming that all of this moisture reports to the ponds, a total of 1,655,000 gallons of fluids would be added to the existing inventory of 200,000 gallons resulting in a storage requirement of about 1,855,000 gallons. This quantity can be stored in the preg and barren ponds. In the event that additional storage is required, North Lily would request timely permission from DWQ to temporarily utilize the 1.5 million gallon capacity overflow pond. Thus it is believed that the ponds will adequately contain all existing solutions plus any additional drain down or runoff caused by a significant rainfall event(s) and any spring snowmelt.

Plans for treating and/or disposing of the process water pond solutions presently contained in the ponds. A plan for correcting the structural integrity of the pond and pad liners to allow continued use, or an alternative plan for collection, storage and treatment of these solutions.

North Lily Mining Company has implemented a program that has resulted in substantially reduced fluid volumes in storage. The company has also completed necessary repairs to the pond and pad liners to allow continued use. Additional maintenance is scheduled during the next several weeks.

During the next construction season, North Lily will evaporate or land apply (subject to agency approval) remaining fluids; design and receive approval for construction of a biopass system or alternative; correct areas of slumping and rill erosion; maintain the solution ditches; remove the surface structures and equipment; final grade the facility; apply topsoil, fertilizer, seed and mulch; and, perform ongoing necessary maintenance until the facility is deemed closed and stable (by agreement between North Lily, DOGM and DWQ).

Please feel free to contact either Tom Gast of Environmental Management Services Company (970/461-0571) or me if additional information can be provided.

Sincerely,

Stephen E. Flechner President and CEO

Cc: W. Gene Webb, Executive Vice-President, NLMC Mary Ann Wright, Associate Director, DOGM Dennis Frederick, DWQ Beth Wondimu, DWQ Tom Gast, EMS